THE Maple Leaf / LA Feuille d'érable

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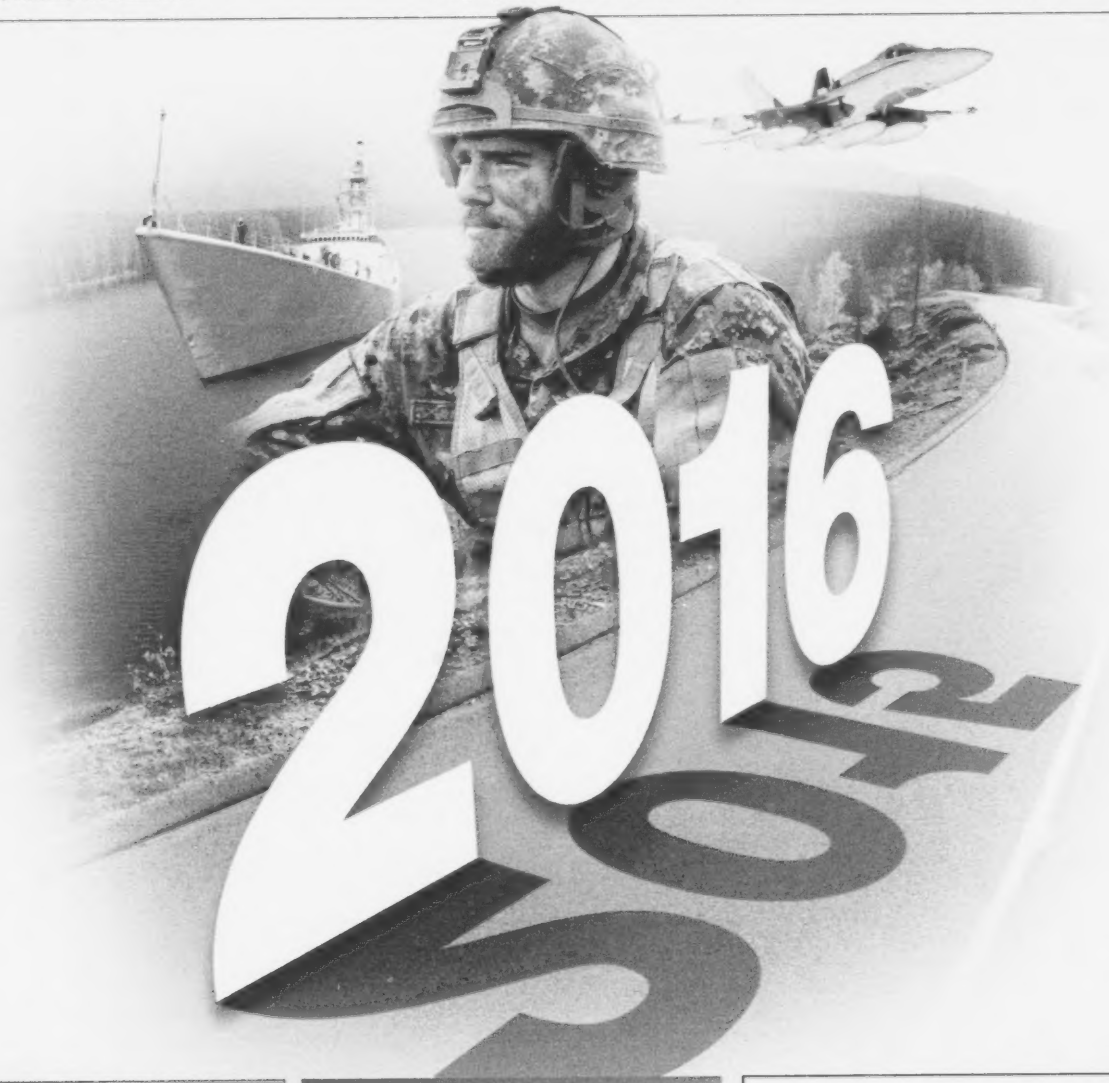
Keeping the Defence Team informed

Français au verso



Celebrating Excellence AWARD WINNERS! pg 11

National Defence / Défense nationale

Canada

DRDC PREPARES THE FUTURE OF THE NORTH

Defence Research and Development Canada (DRDC) is playing a key role through its new All Domain Situational Awareness (ADSA) initiative in exercising Canada's northern sovereignty.

With talks about climate change in the spotlight around the world, the North has become a more interesting place, opening it to some potential challenges. The military has always played an important role in the North, with the North Warning System (NWS) radar technology, providing situational awareness in the Arctic, but the challenge now is that it requires replacement as early as 2025.

"This older generation of technology is due for replacement within the next 10 years," said Dr. Marc Fortin, ADM (Science and Technology), and Chief Executive Officer for DRDC. "With the geopolitical evolution of the threats, we need to take a hard look at the system we have for protecting Canada and North America and keep up with the times."

PHOTO: Dr. Marc Fortin

The North Warning System radar technology, that provides situational awareness in the Arctic, requires replacement as early as 2025.

REPLACEMENT OF THE RADAR SYSTEM

North Warning System is the radar line composed of more than 40 radar stations that make a line in the North, and are part of the North American Aerospace Defence Command (NORAD) system.

The NWS looks at air based threats, and according to Dr. Fortin, we need a fuller system below and above water, under ice, and space based, that will provide commanders with a complete picture of what's happening in and around Canada's territories. ADSA Science and Technology Program will look deeper, higher and farther.

RESEARCHING A SOLUTION

ADSA will explore surveillance solutions related to aerospace warning coverage extending deep into the North, enhanced surface maritime domain awareness, and awareness of sub-surface activity approaching or in Canadian waters. The assessments conducted in each of these areas will provide Defence with evidence based advice to inform high-level decisions on future technologies and capabilities.

The Prime Minister has mandated the Defence Minister to renew Canada's focus on surveillance and control of Canadian territory and approaches, particularly our Arctic regions. So before the government invests millions to replace the NWS with new technology and equipment, DRDC is researching different initiatives, that will be both effective and efficient. ADSA is one of those initiatives, and DRDC has partnered with other government departments and numerous external partners to make it happen.

"ADSA is really a scientific project," said Dr. Fortin. "We are not building the capabilities for just surveillance; we are doing scientific studies that will inform the decisions of what technologies will be deployed."

This initiative will use science and technology to identify, develop and demonstrate the technologies in support of situational awareness across air, maritime surface and sub-surface domains, particularly in the North.

SHARING OF INFORMATION

This whole-of-government partnership will help with other projects, such as climate change, safety and security issues, and tracking of commercial activity in Canada's Arctic. Sharing technologies with departments like Fisheries and Oceans Canada, and Environment Canada, will provide them with important information they need to complete their initiatives.

"If we have an asset under water or ice that is collecting information, even something as simple as the changing water temperatures, it can provide important data for these other departments."

Through an investment of $133 million over five years, DRDC will lead the ADSA S&T Program and work in partnership with these other government departments, academia, industry and allies to conduct research and analysis to support the Defence Team in the development of ADSA.

"Commanders want to have situation awareness of all domains," said Dr. Fortin. "I state plural because we need to look at under water, above water, air, ice and space, and it all has to work."

To accomplish this, DRDC is working closely with the United States and the Five Eyes community which includes Canada and the United States, as well as Australia, New Zealand, and the United Kingdom. Using some of the best minds, DRDC has brought together a dedicated team of scientists from across different domains: maritime, space, land, radar, and air, because the objective is a complete holistic picture. Having this new technology will allow Defence to detect threats with more accuracy and speed, giving the commanders more information and more advanced warning.

Dr. Fortin also has a personal draw to the North, as his great-uncle Captain Joseph Bernier, explored the Arctic archipelago from 1904 to 1911 and officially claimed the islands for Canada. "Now my job includes protecting the Arctic," said Dr. Fortin with a smile. ◆

DEFENCE TEAM NEWS IS COMING TO YOUR SOCIAL MEDIA FEED!

Defence Team News is a biweekly newscast that was created to keep members information of the latest news happening across Defence.

Following the launch in June, Defence Team News is now making the leap to social media on January 11. While it will continue to be posted to the Defence Team intranet site, it will expand externally to social media channels in order to reach members who do not have ready-access to a DWAN computer.

The short, five-minute newscast features Defence-related information such as CAF operations and exercises, information on equipment, updates to programs and services for the Defence Team, member accomplishments and segments to highlight historic Canadian military milestones.

If you haven't yet watched an episode, be sure to visit the Defence Team intranet or the Canadian Armed Forces YouTube channel to watch the latest episode.

SEND US YOUR IDEAS!

We want to ensure that this newscast provides you with relevant and interesting content, so let us know what you think and please submit your ideas for future stories to Internal communications: internes@forces.gc.ca.

Thanks and keep watching! ◆

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COVER:

Happy New Year to the Defence Team

ADM(HR-CIV) A STRONG, STRATEGIC PARTNER

We recently sat down with Kin Choi, the Assistant Deputy Minister (Human Resources - Civilian) (ADM(HR-Civ)) during his "Human Resource Officer for a Day" job shadowing event. Mr. Choi discussed the importance of such events, and the state of human resources at National Defence.

Kin Choi greets a member of the Defence Team at the 2015 DND/CF Celebrating Excellence Awards ceremony.

Q: Why do you feel it's important to undertake job shadowing initiatives like this?

A: I've been taking some time to go across the country, and part of what I've been able to do is some job shadowing and being a human resource officer for the day. I give full credit for this idea to one of my colleagues from Employment Social Development Canada (ESDC), who exchanged jobs with one of his officers as part of his Blueprint 2020 challenge, and I thought that was a brilliant idea.

I believe it's important for senior leaders to be grounded. I've worked in HR quite a bit before, I've been responsible for it, but each organization has its own unique challenges. National Defence is so big and so complicated, it is important for me to get grounded. I know we have good people, and I've been able to verify that and see them in action. So my takeaway is, how do we support those people that are front-line, providing the service to our clients? What are the tools that they're going to need? What is the policy cover that they need? What are the directions they're going to need? Having these experiences will allow me to bring back information and have further discussions with my team of directors general, but also with other senior military and civilian colleagues (Level Ones), so that I can have a sense of the challenges that they're going through.

So far, I haven't had the chance to find someone who wanted to take up my job, so I'm still at that. But I find this job shadowing and kind of "going undercover" really enlightening for me.

Q: Based on your first six months as ADM(HR-Civ), what are your early impressions of National Defence?

A: People impress me a lot. It's a big department. I've had the chance to visit various places and bases. There are many challenges all over the country. I'm really impressed by the dedicated people that we have throughout the organization, not just within ADM(HR-Civ), and just how dedicated people are to this organization. We're big, we're complex, but we get things done. We have tremendous challenges, but we have really good people to meet our challenges.

Q: What is your HR vision for the Defence Team?

A: I want us to be a strong partner. I want us to be strategic. I want us to enable the business. I think it's important that we provide exceptionally high-quality service that meets the needs of our clients, but at the same time upholds the values, ethics, and principles of human resources management in the Public Service. I don't think these missions are in conflict, I think they're complimentary. We want to have a good workforce, a happy workforce, a productive workforce, and we want to do it within the framework and the legislation of good human resources practices.

Kin Choi sits in a cockpit while visiting CFB Trenton in August 2015.

Q: What are the immediate and long-term challenges that you foresee for National Defence?

A: That's a good question, especially when it comes to personnel. I think that, as a department, we are pretty old. I think the average employee age is 47, which is reasonably old. This is an opportunity for us to implement a new recruitment strategy and renew our department. You know, I think this is still a healthy situation. We're older, (as a workforce) is explained, by some, to the fact that people come to National Defence later in their career, second career, after releasing from the military and so on. At the same time, there are a lot of retirements and attrition that we should look to take advantage of and look to bring in the skill sets that we're going to need for the future. It's also an opportunity to align our renewal strategy with the Clerk of the Privy Council's report.

Q: Can you speak to the role that innovation plays in shaping the future of the Defence Team?

A: Innovation has to be at the core of everything we do in the Public Service. We're seeing innovation throughout the world, and it's really reshaping us. Things that weren't with us just five years ago are now at the forefront of some unprecedented innovation which is really pushing us to challenge the status quo. Social media obviously comes to mind. But we also have to capitalize on changing our business model to actually capture that innovation. If we only add more innovation and more channels, we're actually not going to be more productive.

I think about this often from an HR perspective. In order for us to be an effective business partner, we need to have better systems, but we have to do things differently so that we are more connected to the people side of things. Innovation as such has a really important role to play and we have to capitalize on it, and that's at the core of what Blueprint 2020 is talking about – let's be strategic and let's stop doing some of the things we've done before. For instance, I've asked my team to undertake a smart administrative review. Sometimes we call it "lightening up". Essentially, we can use innovation to reduce administrative burden here. There are rules and regulations that are a bit dated and that are no longer a risk to the organization and that should encourage us to do differently.

Q: What is your vision or interpretation of the Defence Renewal initiative?

A: It's an important initiative for us. My take on Defence Renewal is not only the what, but the how we go about doing this. I think that engaging everybody is part of it and will get us the right results, get us the buy-in on applying it. I don't see it as just about savings, because sometimes that can distract you. Renewal is a good opportunity for us to challenge the existing model and how we go about doing things, by beginning to have new processes, and investing in new ways of doing our own business.

Q: How can individuals contribute to this vision for the future of the Defence Team?

A: I think it takes all of us. We need more ideas from the grassroots and we need to provide people with more permission and authority to take those risks. This is one of the areas we can explore more of in the future. How do we find ways for these ideas to come up? In my last position at ESDC, I was one of the champions for Blueprint 2020, and I was really pleased we were able to tap into the grassroots, where officers could come up with ideas. One of the things they came up with was a tablet, which they can take anywhere to conduct their business on the fly so they didn't have to go back to write up their files. They could actually deal with a client on the spot. I think that's the kind of innovation that I'm hoping we're going to allow our staff to come up with. We've got to give them the tools, we have to give them the authority and we have to allow them to take the time to innovate. ◆

WEATHER OFFICE TAILORED TO NEEDS OF THE CAF

The Canadian Forces Weather and Oceanographic Services (CFWOS), a meteorological and oceanographic information services is available globally, and just one click, email or phone call away.

CFWOS provides a number of methods to access weather information and briefing services by military users to meet their tactical, operational or strategic needs.

The first accessible method is the CF weather office website, which is available on the Internet, the DWAN and CSNI (**http://met.cmil.ca**).

How does the CF weather office website differ from others?

It provides:

- General weather and oceanographic information for marine, public and aviation current conditions and forecasts;
- Weather products produced specifically tailored for a Royal Canadian Air Force wing, a Royal Canadian Navy ship, or a Canadian Army base;
- Operation-specific weather packages and information which are updated as new information arrives to ensure the most current information is available; and
- Allied forces weather information from around the globe.

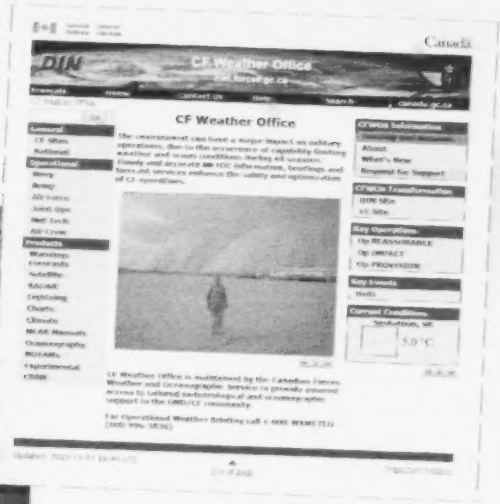
Another way of accessing weather information to assist in operational planning or to arrange an operational weather briefing for a specific event is to complete a request for support form on the CF Weather Office website. These include requests for air, naval or land exercises and deployments, flight-related weather data, climate information and other weather data.

The responsible weather centre will action the request no matter what contact method is used. Meteorological technicians are on duty to respond immediately and will arrange for the provision of a weather briefing or the delivery of required information by phone, fax, email, or online to CF Weather Office.

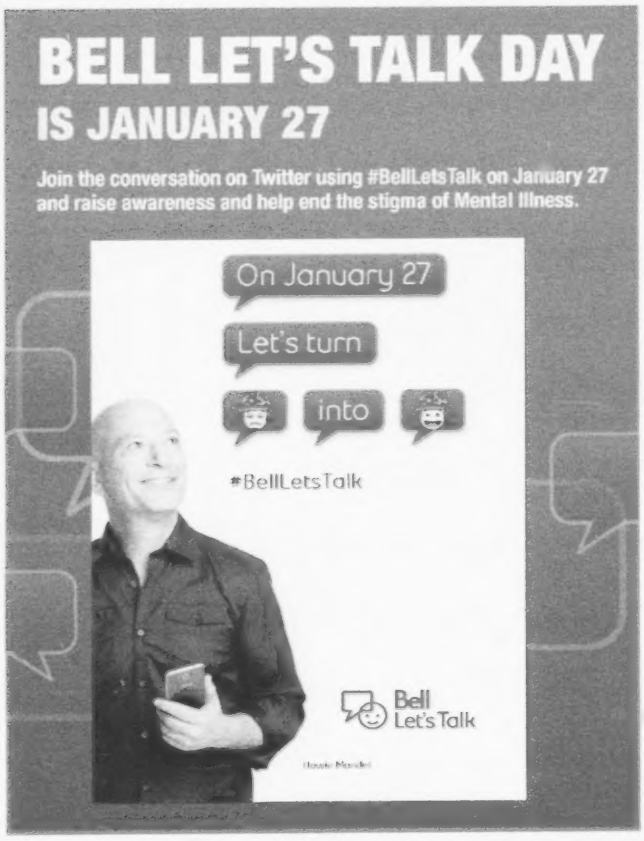
If there is an urgent tactical or operational requirement, service users can phone the CFWOS at 1-800-996-3836. ◆

PHOTO: DND

Defence Team personnel at METOC Halifax Operations Centre provide weather services.



The CF Weather Office webpage contains a significant amount of weather information to assist CAF personnel.


BELL LET'S TALK DAY
IS JANUARY 27
Join the conversation on Twitter using #BellLetsTalk on January 27 and raise awareness and help end the stigma of Mental Illness.
On January 27
Let's turn
into
#BellLetsTalk
Bell
Let's Talk

PILOT COURSE BRINGS SECURITY COMMUNITY TOGETHER

Staying on top of the threats facing Canada and its allies requires an integrated solution to ensure the CAF is ready for whatever challenges lie ahead.

To meet this challenge, a pilot Canadian Security Studies Course (CSSC) was held recently in Ottawa for 46 participants from 13 government departments and agencies.

"This executive-style course is part of ongoing efforts to create links and build common knowledge and understanding throughout the national security community," said Major-General Eric Tremblay, commander of Military Personnel Generation.

LESSONS LEARNED

The CSSC is part of the Defence Team's broader efforts to build institutional excellence in the Canadian Armed Forces (CAF). It was created as a result of a challenge to the Canadian Forces College (CFC) by MGen Tremblay, to take inspiration and lessons-learned from the Canadian Security Studies Programme and National Security Programme, as well as the National Security Practitioners Project, to develop and deliver a pilot course built on an executive education model.

The course was led by Dr. Alan Okros of CFC, in partnership with the Royal Military College of Canada, as part of a whole-of-government approach. The course's intent aligned with the government's direction to ensure a close link between defence policy, foreign policy and national security.

PROGRAM DISCUSSIONS

The diverse range of participants laid the ground work for in-depth discussions, as they learned and discussed key national security issues, roles and mandates. Participants were encouraged to think about the current security environment and how it impacts their day-to-day work, and also consider the challenges the national security community will face in the short and medium term.

To stimulate discussions, the course featured lectures and practitioner-led briefings by Global Affairs Canada, the Privy Council Office, the Canadian Security and Intelligence Service, DND and Public Safety, as well as a presentation by the Child Soldier Initiative.

Feedback from participants was positive and reinforced the necessity of such events in building institutional excellence within the CAF and the broader whole-of-government national security community. For more information about upcoming events, please contact us at CDAExternalEngagementPartnerships@forces.gc.ca. ◆

Garrison emergency responders put to the test

PHOTOS: Cpl Mark Schuirtis

Exercising emergency responders access a shooting victim during a surprise exercise.

Garrison Petawawa Operations and emergency services personnel were put to the test late November, with the unannounced Exercise Florian Response 15.

"The surprise emergency response exercise was intended to examine the response time and reaction of not only our firefighters and military police on Garrison Petawawa, but also our operations personnel who are responsible for the coordination of activities on the garrison in the event of any emergency," said Lieutenant-Colonel Rich Raymond, commanding officer of 4th Canadian Division Support Base (4 CDSB) Operations Services.

In the event of an emergency, the operations staff is responsible for activating the Operations Centre which is responsible for coordination of activities including command and control, minute-to-minute incident response, maintaining situational awareness, the co-ordination of information management for operations, and communications both internally and externally.

"The goal of the exercise was to make it as realistic as possible with no notice to the emergency responders or personnel on the garrison," said Colonel Marc Gagne, Garrison Petawawa commander. "The exercise was a great success because our personnel were challenged within their area of responsibilities and some great lessons were learned that will assist us in future planning."

The exercise was launched at 9:30 a.m. when an active shooter was reported at 2 Field Ambulance (2 Fd Amb). 2 Fd Amb called Military Police to report an incident and within minutes emergency responders were on the scene to assess and control the situation, which included an inner cordon of the building, lock down procedures, military police immediate action drills and casualty triage, treatment and evacuation by the Garrison Fire Department and 2 Fd Amb medical personnel.

An after action report was conducted involving all of the emergency services, operations and communications personnel to address key issues in the exercise. Chief Warrant Officer Marty Walhin, 4 CDSB Operations Services, was the office of primary interest for the event. He says another similar surprise exercise will be planned in the near future to practice the lessons learned. ◆

Military Police respond to an active shooter at building BB-130 2 Field Ambulance during a mock exercise.

UPDATED WRITING GUIDE NOW AVAILABLE

An updated Senior Executive Writing Guide is now available on the Defence Team intranet. The guide is designed to streamline and standardize writing guidelines and procedures, and to assist all personnel involved in developing and preparing correspondence and departmental communications intended for senior executives (L0 authorities).

The changes have been made to the signature blocks of the Minister of National Defence and the Chief of the Defence Staff, the inclusion of a bilingual military signature block format for bilingual correspondence, and additional instructions for preparing documents (cover letter and memorandum review) for the Deputy Minister and CDS's signatures.

Personnel with intranet access can view the Senior Executive Writing Guide on the Defence Team intranet at intranet.mil.ca, on the A-Z Index page. Should you have any questions on the Senior Executive Writing Guide, or if you require a copy and do not have intranet access, please contact Vidalia Botelho at vidalia.botelho@forces.gc.ca or at 613-992-5223.

RCN COMPLETES SUCCESSFUL OPERATION CARIBBE

Since departing their home port of Esquimalt, B.C. in early October, HMC Ships *Brandon* and *Whitehorse* achieved a great deal of success during Operation CARIBBE.

The two ships were deployed to Op CARIBBE in support of Op MARTILLO, a US Joint Interagency Task Force South-led interagency and multinational effort among Western Hemisphere and European nations, designed to improve regional security and deter criminal activity.

During the deployment, the ships conducted numerous boardings and inspections, as well as intercepted and disrupted contraband traffic. From October 23-December 4, 2015, both ships assisted the United States Coast Guard (USCG) in the seizure and disruption of more than 9800 kg of cocaine by intercepting suspected smuggling vessels and locating floating bales of contraband at sea.

"I am tremendously proud of the dedication and hard work displayed by everyone involved in this operation," said Lieutenant-Commander Shane Denneny, HMCS *Whitehorse*'s commanding officer. "This demonstrates the strength in teamwork to suppress criminal activity in the region."

This was not the first time the ships deployed to Op CARIBBE. HMCS *Brandon* conducted surveillance in the Eastern Pacific in 2014, and HMCS *Whitehorse* deployed early 2015.

"The collaborative effort between HMCS Brandon and the United States Coast Guard ensures the continued success of these types of operations in the region," said LCdr Creasy. "I could not be more proud of the professionalism, communication and skillset of all the members involved in these disruptions."

This deployment was a great opportunity for CAF personnel because they were an integral part of a complex real-world mission involving multiple air and surface units being coordinated by a multi-national agency. ◆

HMCS *Brandon* comes alongside USS *William P. Lawrence* during a passenger exchange during Op CARIBBE.

2015 | Year in Review

January

COMMANDER OF COMBINED TASK FORCE 150 TALKS ABOUT THE MISSION

Commodore Brian Santarpia, Royal Canadian Navy (RCN), assumed command of the multinational maritime counter-terrorism task force, Combined Task Force 150 (CTF-150), a position he held until April. CTF-150 was one of the three task forces operating under Combined Maritime Forces (CMF), a 30-nation naval coalition based in Manama, Bahrain, in the Arabian Gulf.

CANADIAN ARMY RESTORES HISTORICAL TIES TO DIVISION AND RANKS

The Canadian Army restored key aspects of its identity, which included everything from organizational names to ranks and insignia.

February

KEY FACTOR IN THE RECOVERY OF ILL AND INJURED SOLDIERS

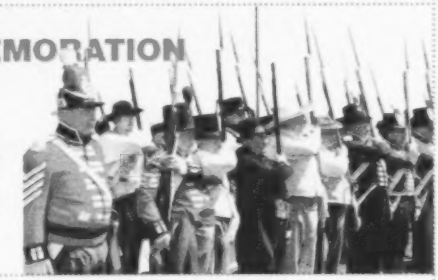
To help encourage the successful recovery of soldiers, the Canadian Armed Forces (CAF) bolstered resources available through increased services within the medical services provided, as well as improved programs available through its Personnel Support Programs (PSPs).

DEFENCE RENEWAL: SMARTER WAYS OF DOING BUSINESS

Dr. Linda Goldthorp, former co-lead for the Defence Renewal Team, sat down to discuss the goals of the eight organizational practices initiatives. These practices are aimed at improving the workplace culture at Defence, as well as our ability to embrace and sustain improvements to performance over the long-term.

WAR OF 1812 COMMEMORATION COMES TO AN END

A nation-wide commemoration of the 200th anniversary of the War of 1812 kicked off in 2012 as Canadians celebrated this pivotal period in Canadian history. This was an unprecedented opportunity for Canadians to take pride in their traditions and shared history. This was especially true for members of the Defence Team.



HMCS *FREDERICTON* DEPLOYS ON OP REASSURANCE

HMCS *Fredericton* arrived in Lisbon, Portugal on January 6 to join Standing NATO Maritime Forces as part of Operation REASSURANCE, Canada's contribution to NATO-led assurance measures that promote security and stability in Central and Eastern Europe.

March

CANADIAN RANGERS IMPRESS DURING EX MOBILE RANGER

It was the first time Brigadier-General David Patterson, deputy commander of 4th Canadian Division, had seen Canadian Rangers operating and it left a positive impression.

LEOPARD ROLL-OUT MARKS END OF SUCCESSFUL BILATERAL PARTNERSHIP

During a recent ceremony in Munich, the government officially turned over the 20th (now upgraded) Leopard 2 A7 to the German Army. The German Army and KMW took the opportunity to acknowledge Canada's crucial role in the success of this bilateral partnership. This collaboration made it possible for Canada to keep the invaluable Leopard 2 A6M battle tanks in service until the end of the combat mission in Afghanistan.

2015 | Year in Review

April

ADM(IE) BECOMES DEFENCE'S REAL PROPERTY CUSTODIAN

The Leadership Spotlight shone a light on Jaime Pitfield, Assistant Deputy Minister (Infrastructure and Environment). Mr. Pitfield provided a glimpse into the world of infrastructure and environment and the broad spectrum that encompasses. ADM(IE) embarked on an exciting time where many new changes are being implemented.

SHARING CANADIAN EXPERTISE IN THE CARIBBEAN

Canada's experience and expertise in the delivery of humanitarian assistance was shared with Mexico and other nations during Exercise READY RENAISSANCE 2015. The exercise was held in Kingston, Jamaica and focused on a Canadian Armed Forces Disaster Assistance Response Team (DART) response to a regional disaster event.

ARMY RENEWAL: MERGING SIMULATION WITH REALITY FOR TRAINING AND REAL-WORLD APPLICATIONS

Today's soldiers no longer learn how to do battle the way our veterans did. By diminishing reliance on live-fire training, simulation and advanced technology learning tools offer cutting-edge and challenging ways to train the Army of today and tomorrow.

May

GENERAL JONATHAN VANCE NAMED NEW CDS

General Jonathan Vance, former commander of Canadian Joint Operations Command, was appointed Chief of the Defence Staff (CDS). He replaced Gen Tom Lawson who served in the position since October 2012.

ACTION PLAN TO ADDRESS INAPPROPRIATE SEXUAL BEHAVIOUR RELEASED

General Tom Lawson, Chief of the Defence Staff, released an action plan to address inappropriate sexual behaviour in the CAF following recent incidents. He also publicly released the independent external review authority's report into sexual misconduct and sexual harassment.

OP NUNALIVUT: HIGH ARCTIC ADVENTURES

More than 200 soldiers, sailors, airmen and airwomen deployed on Operation NUNALIVUT 2015 (Op NU 15), an operation planned and commanded by Joint Task Force (North).

June

OP RENAISSANCE: DART RESPONDS TO NEPAL EARTHQUAKES

More than 200 members of the CAF deployed in Nepal aiding victims from the 7.8 magnitude earthquake that hit Nepal's capital, Kathmandu, and the major aftershocks which triggered avalanches in the Himalayan Mountains.

INTERNATIONAL CO-OPERATION ADVANCES CBRN TRAINING

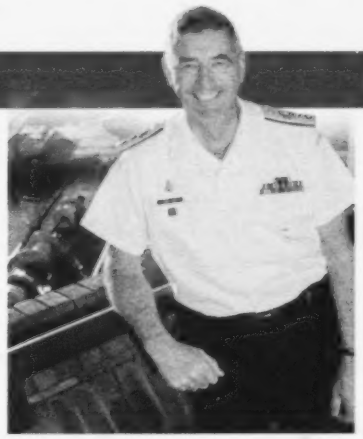
CAF members responded to a simulated chemical agent attack, part of the training during Exercise MAPLE RESOLVE, held at CFB Wainwright, Alta.

2015 | Year in Review

July

AIR TASK FORCE-IRAQ SURPASSES 1000 OP IMPACT SORTIE

Trailing a characteristic blue flame, a CF-18 took to the sky in the early morning of June 4 on its way to operations over Iraq to mark the 1000th sortie of Operation IMPACT.



MARLANT: BUILDING THE PICTURE OF CANADA'S SEAWAYS

Rear-Admiral John F. Newton, Commander Maritime Forces Atlantic and Joint Task Force Atlantic, shared some insight into some recent challenges, successes, and passions.

THUNDERBIRD CHALLENGE HELPS MILITARY POLICE CELEBRATE 75 YEARS

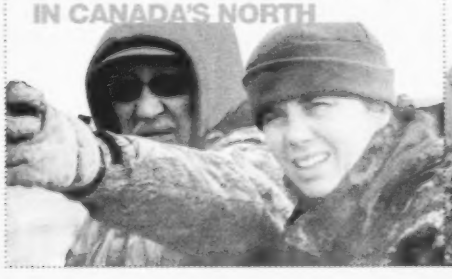
A one-day event focussing on fitness, an obstacle course, pistol shooting and combat rifle competitions had military police (MP) from across the country competing in the Thunderbird Challenge.

September

CDS ORDER FOR "OPERATION HONOUR" NOW OFFICIAL

The op order and other details of Op Honour are available online through the Defence Team intranet site at **intranet.mil.ca**.

OP NANOOK THE LARGEST SOVEREIGNTY OPERATION IN CANADA'S NORTH



FIGHTING THE FORCES OF NATURE: CANADIAN ARMY HELP DURING WILDFIRES IN SASKATCHEWAN

Fighting an unconventional enemy is one of the things that the CAF do best. So when the call came, to join forces with experienced firefighting crews who were battling the wildfires scorching the landscape of northern Saskatchewan, in Operation LENTUS 2015-2.

October

DEFENCE'S IT GURU ON CYBER SECURITY AWARENESS

Len Bastien, Assistant Deputy Minister (Information Management), discussed his role as Chief Information Officer (CIO) and "IT guru" for Defence, as well as some of the capabilities the IM group delivers.

START TO MILITARY TRAINING MISSION IN THE UKRAINE

Ukrainian and Canadian military personnel stood together on parade in two separate locations in Ukraine during dual ceremonies marking the opening of Canada's military training mission to Ukraine.

CANADIANS REMEMBER "THE FEW" WHO FOUGHT THE BATTLE OF BRITAIN

They were gathered for the national ceremony observing the 75th anniversary of the Battle of Britain: the first Allied military victory of the Second World War and the first in the history of the world to be won by air power.

2015 | Year in Review

OCTOBER 22: A DAY CANADIANS WILL REMEMBER

On October 22, the assault on Parliament Hill and sacrifices of Warrant Officer Patrice Vincent and Corporal Nathan Cirillo one-year ago were marked in a public ceremony at the National War Memorial in Ottawa.

November

JOINTEX PROVIDED THE CAF AN OPPORTUNITY TO TRAIN AS THEY FIGHT

More than 1000 CAF personnel and 70 personnel from six allied countries traded their rifles for computers as they began JOINTEX 15, with the objective to shape how the CAF conducts future operations.

THE SNOWBIRDS CELEBRATE 45 YEARS

Snowbirds, 431 Air Demonstration Squadron, celebrated their 45th anniversary of performing in front of North American audiences representing the skill, professionalism and teamwork of all members of the CAF.

December

CANADA'S PARTICIPATION IN LARGEST NATO EXERCISE IN RECENT HISTORY

The significance of the Canadian Armed Forces' participation in JOINTEX 15, the largest NATO exercise in recent history, is to shape future operations. Canada contributed a Joint Task Force led by the 1st Canadian Division Headquarters from October 21 to November 6.

MODERNIZATION OF THE FIELD-DEPLOYABLE DENTAL CLINIC

The final modifications to the new state-of-the-art deployable dental clinic vehicle are completed, making the field deployable dental clinic much more efficient.

DEFENCE TEAM CONTRIBUTION TO GOVERNMENT ASSISTANCE TO SYRIAN REFUGEES

The government detailed its plan to deliver on its commitment to bring 25 000 Syrian refugees to Canada as soon as possible. The Defence Team will provide support to the government's five-phased plan, and helped make the transition into Canada as seamless as possible for the refugees. Conducted under Operation PROVISION, the Defence Team is uniquely suited to support this government-wide effort.

THE INNOVATORS profiles members of the Defence Team who have demonstrated front-line innovation and ingenuity in their work. Real-life stories illustrate the innovative ideas these groups and individuals had, those which have been implemented and the potential impact proposed new ideas may have on the Defence Team.

3D PRINTING TRANSFORMS THE RCN

PHOTO: Randy Crust

The Laser Additive Manufacturing (LAM) System team, Matt Barnett and Gigi Pelletier.

3D printing is revolutionizing the way products big and small are being manufactured for industry throughout the world. Gigi Pelletier and Matt Barnett, Laser Additive Manufacturing (LAM) System team at Fleet Maintenance Facility Cape Scott in Halifax, N.S., are harnessing this ground-breaking technology to transform how the Royal Canadian Navy maintains its fleet.

The RCN's fleet of naval ships were aging, and some replacement parts were no longer commercially available. That's when the LAM team stepped in four years ago. They are leveraging this new technology, that to-date has been predominantly used in the medical field to manufacture new parts or maintain the current components.

"Like most Navies, we have a supply issue. We're running older ships and in some cases commercial materials are no longer available. We needed to find a way to repair and manufacture components for our warships. 3D printing gives us the capability of not only defect rectification, but also manufacturing obsolete pieces, thereby ensuring our vessels are operational and are able to continue with missions," explained Ms. Pelletier, a material engineer with decades of experience at Defence.

SUBTRACTIVE VS. ADDITIVE MANUFACTURING

Traditional manufacturing involves the removal of metal to create parts. This process, called subtractive manufacturing, has its drawbacks. It restricts the ability to construct fine parts, takes more time because it begins with a big piece of metal and machines it down to the smaller part, and it isn't an environmentally friendly option.

Recently, with 3D printing gaining popularity, FMF Cape Scott seized the opportunity to push the envelope of manufacturing and maintaining parts for the RCN.

"We have 72 machines here that remove material, but the LAM system is the only one that adds material," said Mr. Barnett, a Red Seal Tool and Die Maker. "The LAM has expanded the versatility of our machining services. We're provided now with a technology that didn't exist anywhere else in Canada on either a contract or government basis."

Additive manufacturing, or 3D printing, is the process of joining material to make objects from a 3D model, usually layer upon layer. Additive manufacturing can reduce energy use by up to 50 per cent and can reduce material costs by up to 90 per cent, compared to subtractive manufacturing. 3D printing could also use the shavings left over on the shop floor from traditional subtractive manufacturing (after special processing), which would otherwise be destined to be scrap material.

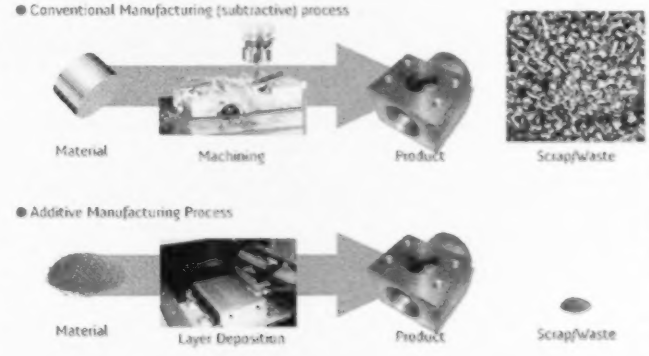
"Laser additive manufacturing – 3D printing – has been around for awhile. However, a lot of the research and development has been ongoing in the medical and aerospace industry. We are very proud to be able to have the first laser additive manufacturing system in a production facility in Canada. So basically, we're on the shop floor, we're not doing research and development, we're not a learning institution, we are actually using this to repair issues that we were experiencing on a daily basis," said Ms. Pelletier.

RESULTS CREATE INTEREST

The results of the LAM system speak for themselves. Recently, the group repaired the capstan – a rotating machine developed for use on ships to apply force to ropes, cables, and hawsers – for HMCS *Halifax* with alloyed steel, as opposed to the traditional carbon steel shaft. This will increase its corrosion resistance and wear resistance, giving the part longer service life and likely less preventive maintenance requirements.

The final goal of the undertaking is to keep our sailors busy operating the ship versus trying to fix broken things," stated Ms. Pelletier.

These results are creating interest with RCN colleagues in Esquimalt, B.C. "Hopefully in the future we'll see a mirror image of what happens on the East Coast taking place on the West Coast. That will likely be modelled on successes we have here," said Mr. Barnett.



Representatives from the US Navy recently visited FMF Cape Scott and were very interested in the advancements that the team is making and pointed out the vital benefits to being a small Navy with access to ships readily available.

"They were noticing, 'Wow, you guys are lucky.' There are benefits to being a small Navy," said Ms. Pelletier. "The civilian and military people work closely together and we grow our knowledge and capabilities as a team. Being a small Navy gives us the capability of walking out this building and being on the platform and looking at the problem immediately and being able to work closely with the operators of the war vessels, we can come up with solutions much quicker."

Our US counterparts, with a much more sizeable Navy, contend with having their research area located hundreds of miles away from their ships and rely on pictures and videos to do their problem-solving.

"We just put on our overalls and hard hats and we go crawl along the ship and go look at it," explained Ms. Pelletier.

FUTURE OF 3D PRINTING AT DEFENCE

The LAM team plans to create a qualified supply of naval materials that currently exist on their platforms and to grow the ability to perform immediate repairs needed – the main goal always being to keep the RCN's naval vessels operational. The LAM team is aiming to have this 3D printing technology readily available for RCN vessels.

"The 3D tool that we have here now at Cape Scott, and for which we establish new processes, is an absolutely fantastic tool that is added to a directory, an arsenal of tools available to us to maintain the Navy's operational needs at a very high level. From a technical point of view, we are the first in the Navy to create the procedure hoping to be able to help our brothers and sisters of the Cape Breton unity, on the West Coast, to be able to develop procedures and maintain the Navy ships in general in the future," says Captain Stéphane Lafond, commander at FMF Cape Scott.

Both Mr. Barnett and Ms. Pelletier are extremely passionate about their jobs and are excited to be the first to break ground with this technology in a production facility in Canada.

"Because of Matt's capabilities, we've been able to be world leaders in the materials we're using and we're getting a lot of attention right now," said Ms. Pelletier with a smile.●

Celebrating Excellence
AWARD WINNERS!

The Celebrating Excellence Awards Program represents the highest expression of recognition in the Defence Team. The recipients of these awards have been acknowledged by their colleagues for exemplary performance and remarkable leadership. This important tradition generates pride and employee engagement by recognizing the exceptional work achieved by our Defence Team colleagues throughout the year.

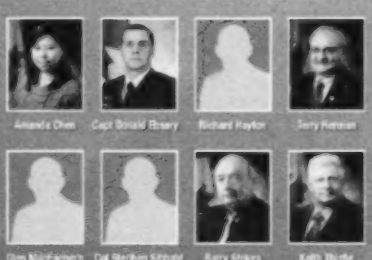
For more information on the Celebrating Excellence Awards, visit http://hrov-rhcv.mil.ca/en/p-awards-types-corporate-awards.page.

DM/CDS INNOVATION AND RENEWAL AWARD

OS CELL – 36 CANADIAN BRIGADE GROUP

MARITIME HELICOPTER PROJECT TEAM

NORTH WARRING SYSTEM OFFICE TEAM



E-CLASS TOOLS TEAM

MENTAL HEALTH IN THE WORKPLACE FOR MANAGERS TEAM

CAF VIRTUAL LIBRARY TEAM

DM AWARD FOR EXCELLENCE

DM/CDS GENERAL TOM LAWSON TEAM BUILDER AWARD

DM EMERGING LEADER AWARD

DM/CDS AWARD FOR MANAGEMENT EXCELLENCE – *LEADERSHIP CATEGORY*

DM/CDS AWARD FOR MANAGEMENT EXCELLENCE – *PEOPLE MANAGEMENT CATEGORY*

POLICY OFFICER RECRUITMENT PROGRAMME TEAM

DM SUSTAINED CONTRIBUTION TO DEFENCE AWARD

CDS DISTINGUISHED ACHIEVEMENT

NEW PAY SERVICES COMING TO NATIONAL DEFENCE

The Government of Canada (GoC) is changing the way pay services are provided. Not only has the Public Service Pay Centre been established in Miramichi, New Brunswick to centralize pay services, but the existing, 40-year-old Regional Pay System is being replaced with Phoenix, a modern, web-based pay system with enhanced self-service capabilities. Phoenix is a fast, accurate, convenient, green solution to GoC pay administration.

WHEN WILL THIS HAPPEN?

As of February 24, 2016:

- All DND civilian pay services will be provided through the Public Service Pay Centre; and
- The Department will transition to the Phoenix pay system.

WHAT DO I NEED TO DO?

For the transition to Phoenix, you will need:

- A myKEY, to access the new Phoenix pay system.
- A MyAccount from the Canada School of Public Service to access training on how to use the new system.

PHOENIX: WHAT IS CHANGING?

Employees will use Phoenix to:

- View pay statements and tax slips;
- Manage direct deposit banking information;
- Manage (start, stop and amend) voluntary deductions: Fonds de solidarité du Québec/Fondaction;
- Manage (start, stop and amend) coverage for Public Service Health Care Plan;
- Report leave without pay of *five* days or less;
- Report time for hours and extra hours worked; and
- Continue to view pension information and perform pension income calculations.

Managers will use Phoenix to:

- Access worklists;
- Update Section 34 manager information;
- Report hours worked by an employee;
- Review and resolve time entry exceptions;
- Approve payable time;
- Review, assign, and create work schedules;
- Request and/or approve employee leave without pay of five consecutive days or less; and
- Request and/or approve overtime/extra duty pay request for payment in cash.

Military managers of civilian employees:

- ADM(HR-Civ) is working with Public Services and Procurement Canada to obtain access to Phoenix for military members. We anticipate access later in 2016. In the interim, ADM(HR-Civ) will communicate alternate processes (e.g. hardcopy/scan/email) while the details of access to Phoenix for military members are finalized. Access to Phoenix training from the Canada School of Public Service will be available on the Defence Learning Network (DLN).

For questions about your pay related to the transfer of pay services to the Public Service Pay Centre call: 1-855-686-4729.

For more information about Phoenix visit the DND Pay Transformation section of the ADM(HR-Civ) intranet site. ◆

CANADIAN SAILORS BRIGHTEN THE LIVES OF CHILDREN IN MEXICO

The only language needed to say thank you to Royal Canadian Navy members was smiles and laughter from the children at an orphanage near Ensenada, Mexico.

Royal Canadian Ships *Brandon* and *Whitehorse* made a port visit that was part of the United States' Northern Command Humanitarian Assistance Project, which is primarily focused on capacity building in disaster preparedness and health-related projects in Mexico and the Bahamas.

"HMCS *Brandon* greatly appreciates the opportunity to work with our allies in support of such a worthy project," said Lieutenant(N) Sean Kelly, HMCS *Brandon*'s operations officer. "Canadian ships often engage in supporting the communities they visit at home and abroad and we are fortunate to have this opportunity during this port visit."

HMCShips *Brandon* and *Whitehorse* were currently deployed on Operation CARIBBE, which is Canada's participation in the multinational campaign against illicit trafficking in the Caribbean Sea and Eastern Pacific Ocean.

Members from the ships' companies were joined by the crew of the United States Coast Guard (USCG) Cutter *Midgett* which donated food, diapers and other day-to-day essentials to the orphanage located outside of Ensenada. Afterwards, USCG sailors and two members from HMCS *Brandon* departed to deliver nine wheelchairs to homes with disabled children and adults in need of specialized care. Money for the wheelchairs and donations were raised by the commander of the Third Fleet and assisted by the USCG.

Although given very short notice of this visit, members of the ships' companies eagerly volunteered their time to help make a small improvement in the lives of some very bright and energetic kids.

"It was remarkable to see how a simple thing such as a selfie brought so much excitement to their faces," said Leading Seaman Kyle Uhlig. "There are no words to describe what I felt today."

Sailors got to work quickly and spent the day painting, cleaning, playing and talking with the children. Members of the ships' companies also participated in two friendly games of soccer and, although they gave it their all, the children easily handed them two humiliating defeats.

"It was a true pleasure to be part of something so worthwhile. I honestly can't think of a more rewarding way to spend a day in a foreign port," said Lt(N) Kelly. ◆

PHOTO: DND

Members from HMCS *Brandon* spent the day with children at an orphanage in Mexico during a recent visit.

ARMY TRAINS FOR REAL WORLD THREATS

Capt Russell Donkersley, G3 Operations, 38 Canadian Brigade Group Headquarters, briefs his syndicate on its final offensive operation assignment during the threat tactics course held in Kingston, Ontario.

Much of the military training done over the past decade has been focussed on operational requirements. Now, the CAF will adopt a new way to train.

Now that operational tempo has slowed, the CAF must concentrate on building a combat-capable, flexible and adaptable force. To address this requirement, Lieutenant-General Marquis Hainse, commander of the Canadian Army, has decided the Canadian Army (CA) will adopt the Decisive Action Training Environment (DATE) as its common training environment.

DATE, which will be implemented in three phases, allows for ease when adapting training scenarios and events to mirror a variety of real world threats rather than focussing on the last war.

"DATE provides a greater level of detail for possible operating environments," says Major Scott Roach, head of the DND and CAF Modelling and Simulation Coordination Office, at the Canadian Forces Warfare Centre in Ottawa. "As DATE is based on 20 years of lessons learned and experience, it has been well-developed to provide the information required for effective planning and mission preparation."

The CA requires a modern, adaptable, realistic and relevant training environment to fully prepare commanders, staff and individual soldiers. Adopting a single common training environment and the associated threat model allows a deeper understanding of the full range of opposing forces.

DATE incorporates a better designed and in-depth set of factors within the training environment to include all political, military, economic, social, infrastructure, information, physical environment, and time factors. DATE is not a scenario, but rather a reference database from which training scenarios can be designed, developed and delivered according to commanders' battle task standards. Elements from DATE can be used for domestic operations training, given that it is possible to design scenarios involving potential lone wolf actors, terrorist threats, and criminal threats to DND property.

To teach exercise developers and planners to make optimal use of DATE, the first Canadian threat tactics course (TTC) was conducted at CFB Kingston early November 2015. "The aim of the course is to have students dig into the reference documents to create challenging training events for use within an exercise scenario to meet a commander's training goals and battle task standards," said Maj Roach.

American, British and Australian programs are also looking at fully adopting DATE, as are a number of NATO nations.

If you should have any questions regarding DATE, please send an email (CADTC G5@CADTC HQ@Kingston). To consult all the documentation related to DATE, visit: **http://acims.mil.ca/sp/CADTC HQ G5/DATE/default.aspx**. ♣

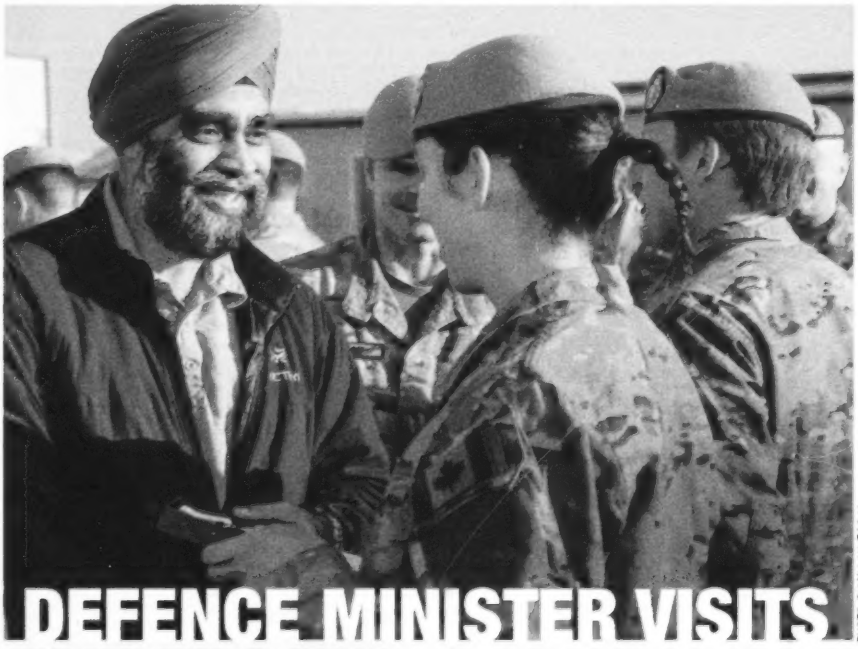
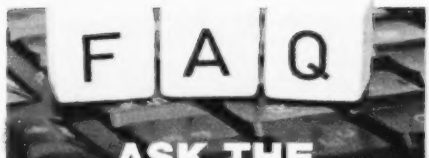


PHOTO: Sgt Yannick Ballard

DEFENCE MINISTER VISITS THE TROOPS

Defence Minister Harjit S. Sajjan, presents medals to the members of CANSOF Task Force during a visit to Iraq on December 21, 2015.



ASK THE EXPERT

ROTATOR CUFF

Q: I have played softball for over 30 years and could always throw a ball fast and far. In August, I threw a long ball to second base and immediately afterwards my throwing arm felt dead. I haven't been able to throw since then. Our unit PA assessed my injured shoulder, told me I damaged my rotator cuff and sent me to physiotherapy.

—Sgt Chuck

A: Dear Sgt Chuck:

Glad to hear that your throwing arm is improving. The rotator cuff is a group of four muscles and their tendons, that surround the shoulder joint and keep the head of the upper arm bone firmly held within the shallow socket of the shoulder joint. Your rotator cuff helps to provide your shoulders with stability and mobility. Unfortunately rotator cuff injuries are very common and can result in your shoulder being painful, having excessive movement (instability) or having reduced movement.

Rotator cuff injuries range from simple tendon inflammation to a complete tear of the tendon. These injuries can result from a single event such as pulling a heavy suitcase out of a trunk, or from the repetitive wear and tear you see in someone who does a lot of overhead work. Your risk of experiencing a rotator cuff injury increases with age.

People with rotator cuff injuries experience pain in their shoulder – often on top of the shoulder and running down the side of their upper arm. They often cannot sleep on their injured side because this is painful. They may experience a loss of power in their affected arm. They may even have a clunking sensation in their shoulder with certain movements. When a rotator cuff becomes stiff we call this a frozen shoulder, and shoulder movement can be very restricted.

Most rotator cuff injuries respond well to rest, ice, anti-inflammatory medications and physiotherapy. More severe rotator cuff injuries may require a corticosteroid injection or surgical repair. Restoring the strength of your rotator cuff muscles is critical to recovering from these injuries. However, doing the wrong kinds of exercises during the healing process can cause additional damage, such as converting a partial tendon tear into a complete tear.

The bottom line is that a strong and healthy rotator cuff is essential to the effective functioning of your shoulder. Keep working hard with your physiotherapist, and hopefully you will be able to return to throwing fast and far next ball season.

–Dr. Darrell Menard, MD Dip Sport Med
Darrell.menard@forces.gc.ca

For more information on taking control of your health and well-being, please visit Strengthening the Forces.

OPERATION PROVISION

On November 9, 2015, the Government of Canada officially announced its commitment to welcome 25 000 Syrians to Canada. Operation PROVISION is the Canadian Armed Forces' (CAF) support to the Government of Canada's initiative to resettle Syrian Refugees in Canada by the end of February 2016.

The Al Moussa family, identified family for resettlement to Canada, sit in their temporary shelter in a Dalhamiye informal settlement in Bekaa Valley, Lebanon on December 15, 2015.

Les membres de la famille Al Moussa, qui pourront s'installer au Canada, patientent dans leur abri provisoire au camp de réfugiés de Dalhamiye, dans la plaine de la Bekaa, au Liban, le 15 décembre 2015.

Cpl Alex Pret-Lescard, JTF Forward medic, enters a Syrian family's medical history information during the medical screening in Beirut, Lebanon on December 9, 2015.

Le Cpl Alex Pret-Lescard, technicien médical de la FOI avancée, note les antécédents médicaux d'une famille de Syriens lors d'une évaluation médicale à Beyrouth, au Liban, le 9 décembre 2015.

PHOTOS: Cpl Darcy Lefebvre

PHOTO: MCpl/Cpls Bernie Kuhn

Children receive a treat from Pte Jeremie Cormier, an infantryman with the RCR, at the Amman Processing Centre in Jordan.

Des enfants reçoivent des friandises du Sdt Jérémie Cormier, fantassin du RCR, au centre d'évaluation Amman, en Jordanie.

L'OPÉRATION PROVISION

Le 9 novembre 2015, le gouvernement du Canada a officiellement annoncé sa volonté d'accueillir 25 000 Syriens au Canada. L'opération PROVISION constitue la mesure au moyen de laquelle les Forces armées canadiennes soutiennent le gouvernement du Canada dans son processus visant à accueillir des réfugiés syriens au Canada d'ici la fin du mois de février 2016.

PHOTO: Cpl Daisy Lefebvre

MCpl Sandra Eis, JTF Forward medical technician, holds an infant during the medical screening in Beirut, Lebanon.

La Cplc Sandra Eis, technicienne médicale de la FOI avancée, tient un bébé dans ses bras lors d'une évaluation médicale à Beyrouth, au Liban.

A CAF CC-150 Polaris airbus lands at Toronto Pearson International Airport to support the Op PROVISION on December 10, 2015.

Le 10 décembre 2015, un aéronef Polaris CC-150 des FAC participant à l'op PROVISION atterrit à l'aéroport international Pearson, à Toronto.

PHOTO: Kenneth Allan

PHOTO: Kenneth Allan

The first Syrian refugee family to disembark at Toronto Pearson International Airport makes their way into the Canada Border Services Agency's processing area on December 11, 2015.

Le 11 décembre 2015, la première famille de réfugiés syriens arrive à l'aéroport international Pearson, à Toronto, et se dirige vers le poste de contrôle de l'Agence des services frontaliers du Canada.

#WELCOMEREFUGEES | #BIENVENUEAUXRÉFUGIÉS

Two Syrian refugee children pose for the camera, while their family under goes the medical screening in Beirut, Lebanon.

Deux enfants réfugiés syriens se font prendre en photo pendant que leur famille fait l'objet d'une évaluation médicale à Beyrouth, au Liban.

PHOTO: Cpl Daisy Lefebvre